

ABSTRACT OF THE DISCLOSURE

A monolithic ink-jet printhead includes a substrate having a lower ink chamber formed on an upper surface thereof, a manifold for supplying ink to the lower ink chamber formed on a bottom surface thereof, and an ink channel providing communication therebetween; a nozzle plate having a plurality of passivation layers and a metal layer sequentially stacked on the substrate, the nozzle plate having an upper ink chamber formed therein on a bottom surface of the metal layer, a nozzle in communication with the upper ink chamber formed on an upper surface of the metal layer, and a connection hole providing communication between the upper ink chamber and the lower ink chamber; a heater located between the upper ink chamber and the lower ink chamber for heating ink contained in the lower and upper ink chambers; and a conductor electrically connected to the heater to apply a current to the heater.